CHEMICAL NAME: Sodium Hypochlorite Solutions

CAS #: 007681529

FORMULA: NaOCl

CHEM. FAMILY: bleaching agents (oxidizers)

PRODUCT NAMES: SODIUM HYPOCHLORITE (5% + CL2, 5.25% + CL2, 10% + CL2, 12% + CL2, 12.5% + CL2)

SODIUM HYPOCHLORITE (10%, 12.5%, 15%, 18%, 20%)

(12.5%, 12.5% GAC, 12.5%, 16% TRADE)

EXTRACT 2; LCS LIQ CHLORINATION SANITIZER; PRODUCT C(SOD.HYPOCHLORITE 12.5%)

SYNONYMS:
Bleach;
Soda Bleach Liquor;
Chlorine Bleach;
Chemland Extract 2;
Extract 2;

SUPPLIERS NAME: Harcros Chemicals Inc.
5200 Speaker Road
Kansas City KS 66106-1095

SUPPLIERS PHONE NUMBER: 913-321-3131
TRANSPORTATION EMERGENCY PHONE NUMBER: 1-800-424-9300

S.A.R.A. INFORMATION

HAZARDS: Acute Fire Chronic

PHYSICAL DATA: Mixture Liquid

SECTION I HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>MAX</th>
<th>EPCRA</th>
<th>AIR CONTAMINANT LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W/W</td>
<td>%</td>
<td>W/A PPLIES</td>
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<tr>
<td>Sodium Hypochlorite</td>
<td>15.0</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>Hypochlorous Acid, Sodium Salt</td>
<td>(CAS # 7681-52-9)</td>
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<tr>
<td>Caustic Soda</td>
<td>3.0</td>
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<td>N</td>
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<tr>
<td>Sodium Hydroxide</td>
<td>(CAS # 1310-73-2)</td>
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</tbody>
</table>

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SECTION II   HEALTH HAZARDS

POTENTIAL EFFECTS OF EXPOSURE

EYES
Eye contact with product may cause severe irritation  eye damage  blindness

SKIN
Skin contact may cause irritation  burns
Prolonged or repeated skin contact may cause skin damage

INHALATION
Inhalation may cause severe irritation  sneezing
Prolonged or repeated overexposure by inhalation may cause pneumonia  lung damage, damage to
respiratory system  even death

INGESTION
Ingestion may cause severe irritation  tissue ulceration  gastrointestinal damage  circulatory
collapse  convulsions  coma  even death

TARGET ORGANS
OVEREXPOSURE MAY CAUSE DAMAGE TO,
DISORDERS OF, OR ADVERSELY AFFECT THE FOLLOWING SYSTEMS, FUNCTIONS, ORGANS: destruction of all
body tissues

FIRST AID

FIRST AID EYES
Immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart
to ensure flushing of entire surface. Call a physician.

FIRST AID SKIN
Immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated
clothing and shoes. Thoroughly clean clothing and shoes before reuse. Call a physician.

FIRST AID INHALATION
Remove to fresh air. If not breathing give artificial respiration, preferably mouth to mouth.
If breathing is difficult give oxygen. Call a physician.

FIRST AID INGESTION
DO NOT induce vomiting. Rinse mouth with water. Dilute stomach contents by drinking water. If
vomiting occurs spontaneously, keep head below hips to prevent breathing vomit into lungs. NEVER
GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Call a physician immediately.

OTHER INFORMATION

ROUTES OF ENTRY
eye contact  skin contact  inhalation
OVEREXPOSURE MAY AGGRAVATE DISORDERS OF THE
eyes skin respiratory system
CARCINOGEN STATUS
No components, present in excess of 0.1% by weight are listed as carcinogens by IARC, NTP, or OSHA.

SECTION III SPECIAL PROTECTION

PROTECTIVE EQUIPMENT
PROTECTIVE EQUIPMENT EYES
chemical goggles faceshield
PROTECTIVE EQUIPMENT SKIN
impervious gloves rubber apron clean body covering clothing
PROTECTIVE EQUIPMENT INHALATION
If exposure limits are exceeded, or if exposure may occur, use a NIOSH/MSHA respirator approved for your conditions of exposure. Refer to the most recent NIOSH publications concerning chemical hazards, or consult your safety equipment supplier. Respiratory protection programs must be in compliance with OSHA requirements in 29 CFR 1910.134. For emergencies, a NIOSH/MSHA approved positive pressure breathing apparatus should be readily available.

VENTILATION REQUIRED:
Adequate ventilation is required to minimize exposure or to maintain exposure levels below OSHA/ACGIH requirements. Local mechanical ventilation may be required.

ADDITIONAL PROTECTIVE MEASURES
Safety shower, eye wash fountain, and washing facilities should be readily available.

SECTION IV FIRE & EXPLOSION HAZARD DATA

Flash Point (METHOD): > OR = N/A
Flammable Limits (% Volume in Air) UPPER: N/D Lower: N/D

HMIS Info Health : 2
Fire : 0
React : 2
Special : X

EXTINGUISHING MEDIA
water

FIRE FIGHTING PROCEDURES

Continued On Page 4
Prevent human exposure to fire, fumes, smoke, and products of combustion. Evacuate non essential personnel. Firefighters should wear full face, self contained breathing apparatus and impervious protective clothing.

UNUSUAL FIRE & EXPLOSION HAZARDS
Product does not burn, but can provide oxygen which can intensify a fire. Toxic fumes may be released. Product is an oxidizer. It may react vigorously with organics or other materials resulting in an explosion and fire.

SECTION V    PHYSICAL DATA

Boiling Point:  > OR = to 230 deg. F
Freezing Point:  N/D
Specific Gravity (H(2)O=1):  1.0800 TO 1.2800 @  68 deg. F
Vapor Pressure (MM HG.): > OR =  12.1000 TO 17.500 @  68 deg. F
Vapor Density (AIR=1) : N/D
Evaporation Rate ( NA             =1): N/D
Solubility in Water:  SOLUBLE
Percent Volatile by Volume: N/D
pH: aqueous approx. > OR =  11.000 TO 12.000
Appearance:
   COLORLESS TO LIGHTLY COLORED LIQUID

Odor : SHARP

SECTION VI REACTIVITY DATA

STABILITY
Stable when stored in container under proper conditions.

INCOMPATABILITY
amphoteric metals  inorganic acids  organic acids  organic bases  hydrocarbons
organic mixtures  Avoid contact with amphoteric metals which include aluminum, copper, zinc, and brass. Avoid contact with strong reducing agents which include hydrogen, hydrazine, sulfides, sulfites, and nitrates. Product is an oxidizer. It may react vigorously with organics or other materials resulting in an explosion and fire.

HAZARDOUS DECOMPOSITION PRODUCTS

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CHEMICAL NAME: Sodium Hypochlorite Solutions DATE: 27-Mar-2006

SECTION VI REACTIVITY DATA

chlorine  hydrogen chloride  oxygen
HAZARDOUS POLYMERIZATION
Will not occur

SECTION VII SPILL AND LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Product may be toxic to fish or aquatic life. Evacuate non essential personnel, eliminate ignition sources, and wear protective equipment (See Section III). Shut off source of leak only if safe to do so. Contain spill. Recover free product. To clean up residue, reduce by adding reducing agents such as bisulfites or ferrous salt solutions. Some heat will be produced. May be neutralized with reducing agents. Keep on alkaline side and dilute with copious quantities of water. Principal end product is salt water (NaCl).

DISPOSAL METHOD
Solids must be disposed of in a permitted waste management facility. Recovered liquids may be reprocessed or incinerated. Incineration must be handled in a permitted facility. Dispose of material in accordance with all Federal, State and local regulations. Local regulations may be more stringent than Federal or State.

CERCLA REPORTABLE QUANTITY
CONTAINS SODIUM HYPOCHLORITE WHICH HAS AN RQ OF 100 LBS.

SECTION VIII

Proper Shipping Name: HYPOCHLORITE SOLUTIONS
Hazard Class: 8, UN1791, PGIII
Label Requirements: CORROSIVE

SECTION IX ADDITIONAL INFORMATION

LABEL SIGNAL WORD
DANGER
PRECAUTIONS
Wear protective equipment when handling. Use only with adequate ventilation. Wash thoroughly after handling. Do Not breathe vapor, mist, or dust. Do Not get in eyes, on skin, or clothing. Keep from contact with clothing or other combustible materials. Do not swallow.

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CHEMICAL NAME: Sodium Hypochlorite Solutions

SECTION IX ADDITIONAL INFORMATION

HANDLING
Do Not add any other product to this container. For industrial use only. Do Not apply heat to container. ATTENTION: This container hazardous when emptied. Since emptied container contains product residues (vapor or liquid), all labeled hazard precautions must be observed.

STORAGE
Keep container closed when not in use. Store in a cool dry place. Store out of direct sunlight and away from heat. Decomposition can cause pressure-buildup in closed containers. Relieve internal pressure when received and at least weekly thereafter by slowly loosening bung. Retighten immediately. Wear protective equipment. Keep out of reach of children.

SECTION X COMPLIANCE INFORMATION

TSCA INVENTORY STATUS:
Listed

INTERNATIONAL INVENTORY STATUS:
Australia (AICS) Listed Canada (DSL) Listed Europe (EINECS) Listed

MAXIMUM USE LEVEL IN POTABLE WATER:
For Sodium Hypochlorite 12.5% - 80 mg/L & For Sodium Hypochlorite 10% - 100 mg/L

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